

**WHAT IS CLAIMED IS:**

1. A method for analyzing data transmission throughput in a wireless LAN, comprising:

ceiling function-processing a sum of symbols of all sector switch guard times and propagation delay guard times of a MAC frame;

subtracting a number of ceiling function-processed symbols, a number of symbols of signaling PDU and a number of symbols of data PDU except LCH from a number of symbols set in the MAC frame; and

displaying data transmission throughput according to the result of the subtraction.

2. The method of claim 1, wherein the number of symbols of the signaling PDU is a sum of symbols respectively occupied by BCH PDUs having preambles, FCH+ACH PDUs having preambles and RCH PDUs having preambles.

3. The method of claim 1, wherein the number of symbols of the data PDU except the LCH includes a number of symbols of a DL PDU except the LCH and a number of symbols of a UL PDU except the LCH.

4. The method of claim 3, wherein the number of symbols of the data PDU except the LCH further includes a number of symbols of a DiL PDU except a LCH.

5. The method of claim 4, wherein the number of symbols of the DL PDU except the LCH is obtained by adding preambles and a number of symbols of the SCH to be received by terminals, the number of symbols of the UL PDU except the LCH is obtained by adding preambles and the number of symbols of the SCH transmitted by terminals, and the number of symbols of the DiL PDU except the LCH is obtained by adding preambles and the number of symbols of the SCH.

6. A method for analyzing data transmission throughput in a wireless LAN, comprising:

calculating a number of symbols allocated to signaling, sector classification and terminal classification in one MAC frame;

subtracting the calculated number of symbols from a total number of symbols allocated to the one MAC frame; and

displaying data transmission throughput based on the result of the subtraction.

7. The method of claim 6, wherein calculating the number of symbols includes:  
detecting parts allocated to signaling, sector classification and terminal classification in the one MAC frame;

calculating the number of symbols of the part allocated to signaling; and  
calculating the number of symbols of the part allocated to the sector  
classification and terminal classification and performing ceiling function-processing.

8. The method of claim 7, wherein calculating the number of symbols of the part allocated to signaling is for adding the number of symbols of BCH PDU, FCH+ACH PDU, UL PDU except LCH, DiL PDU except LCH, DL PDU except LCH and RCH PDU.

9. The method of claim 8, wherein the number of symbols of the BCH PDU indicates preambles and the number of symbols of BCH, the number of symbols of the FCH+ACH PDU indicates preambles and the number of symbols FCH and ACH, and the number of symbols of the RCH PDU indicates preambles and the number of symbols of RCH.

10. The method of claim 8, wherein the number of symbols of the UL PDU except LCH indicates preambles and the number of symbols of SCH, the number of symbols of the DiL PDU except LCH indicates preambles and the number of symbols of SCH, and the number of symbols of the DL PDU except LCH indicates preambles and the number of symbols of SCH.

11. The method of claim 7, wherein the number of symbols of the part allocated to the sector classification and terminal classification can be obtained by adding the number of symbols occupied by sector switch guard times between the BCH PDUs, the number of symbols occupied by sector switch guard times between the FCH+ACH PDUs, the number of symbols occupied by propagation delay guard times between the UL PDUs, the number of symbols occupied by propagation delay guard times between the DL PDUs in change of a transmission terminal, the number of symbols occupied by propagation delay guard times behind the last DL PDU, and the number of symbols occupied by sector switch guard times between the RCH PDUs by sectors and RCH guard times for classifying terminal per sector.

12. A method for determining data transmission in a wireless environment comprising:

determining a number of symbols of sector switch guard times and propagation delay guard times of a frame;

determining a number of symbols of signaling PDUs and data PDUs except LCHs; and

determining a number of symbols to be used for data transmission in the frame based on the determined number of symbols of sector switch guard times and propagation delay guard times and the determined number of symbols of signaling PDUs and data PDUs.

13. The method of claim 12, further comprising displaying data transmission based on the determined number of symbols set in the frame.

14. The method of claim 12, wherein the number of symbols of the signaling PDU is a sum of symbols respectively occupied by BCH PDUs having preambles, FCH+ACH PDUs having preambles and RCH PDUs having preambles.

15. The method of claim 12, wherein the number of symbols of the data PDU except the LCH includes a number of symbols of a DL PDU except the LCH and a number of symbols of a UL PDU except the LCH.

16. The method of claim 12, wherein the number of symbols of the data PDU except the LCH further includes a number of symbols of a DiL PDU except a LCH.

17. The method of claim 12, wherein the number of symbols of the DL PDU except the LCH is obtained by adding preambles and a number of symbols of the SCH to be received by terminals, the number of symbols of the UL PDU except the LCH is obtained by adding preambles and the number of symbols of the SCH transmitted by terminals, and the number of symbols of the DiL PDU except the LCH is obtained by adding preambles and the number of symbols of the SCH.

18. The method of claim 12, wherein the frame comprises a MAC frame.
19. The method of claim 12, wherein determining the number of symbols to be used for data transmission in the frame comprises subtracting a number of symbols of sector switch guard times and propagation delay guard times of the frame, a number of symbols of signaling PDUs and a number of symbols of data PDUs except LCH from a number of symbols set in a MAC frame.
20. The method of claim 12, wherein determining a number of symbols of sector switch guard times and propagation delay guard times and determining a number of symbols of signaling PDUs and data PDUs except LCHs includes calculating a number of symbols allocated to signaling, sector classification and terminal classification in one MAC frame.